

CLAIMS

1. A power transmission comprising:
 - a housing comprising a front end cover, a rear end cover, and a shell interconnected between said front end cover and said rear end cover;
 - an input shaft rotatably supported by said front end cover and said
 - 5 rear end cover;
 - an output member including a gear rotatably supported on an extension of said front end cover;
 - three planetary gearsets surrounding said input shaft and positioned between said front end cover and said rear end cover, a first of
 - 10 said planetary gearsets having a first member continuously rotatable with said input shaft, a second and third of said planetary gearsets having a first member continuously connected for co-rotation with said output member;
 - and
 - five torque-transmitting mechanisms disposed within said housing
 - 15 including first and second torque-transmitting mechanisms having respective first and second hydraulic servomechanisms having respective first and second pistons slidably disposed in a housing rotatably supported on said rear end cover and being drivingly connected with said input shaft, said first torque-transmitting mechanism having a plurality of friction plates, which
 - 20 when engaged by said first piston provide an operative connection between said first torque-transmitting mechanism and a second member of said second planetary gearset, said second torque-transmitting mechanism having a plurality of friction plates, which when engaged by said second piston provide an operative connection between said second torque-transmitting
 - 25 mechanism and a third member of said second planetary gearset, a third of said torque-transmitting mechanisms having a hydraulic servomechanism including a third piston slidably disposed in either said shell or said rear end cover and having a plurality of friction plates, which when engaged by said

third piston provide an operative connection between said third member of
30 said second planetary gearset and said housing, a fourth of said torque-
transmitting mechanisms having a hydraulic mechanism including a fourth
piston slidably mounted in either said rear end cover or said shell and a
plurality of friction plates, which when engaged by said fourth piston provide
an operative connection between said housing and said third member of said
35 second planetary gearset, a fifth of said torque-transmitting mechanisms
having a hydraulic servomechanism with a fifth piston slidably disposed in
said shell and a plurality of friction plates, which when engaged by said fifth
piston provide an operative connection between said housing and said second
member of said third planetary gearset.

2. The power transmission defined in Claim 1 further wherein:
said servomechanisms of said first and second torque-transmitting
mechanisms are disposed in a rotatable housing supported on said rear end
wall and being drivingly connected with said input shaft.

3. The power transmission defined in Claim 1 further wherein:
said servomechanisms of said first and second torque-transmitting
mechanisms have stationary pistons supported in said rear end wall and
rotatable apply plates connected with said input shaft.

4. The power transmission defined in Claim 1 further wherein:
said servomechanisms of said fourth and fifth torque-transmitting
mechanisms have stationary pistons disposed in said shell and coaxially
aligned in back to back relation.

5. The power transmission defined in Claim 1 further wherein:
said servomechanisms of said third and fourth torque-transmitting mechanisms have stationary pistons disposed in said shell and coaxially aligned in back to back relation.

6. The power transmission defined in Claim 1 further wherein:
said servomechanisms of said first and second torque-transmitting mechanisms have stationary pistons arranged coaxially and supported on said rear end wall, and each of said servo mechanisms having a rotatable apply
5 plate drivingly connected with said input shaft.